

REMARKS / ARGUMENTS

I. General Remarks and Disposition of the Claims.

Please consider the application in view of the following remarks. Applicants thank the Examiner for his careful consideration of this application.

Claims 1–12, 15–28, 31–44, 47, and 48 are pending in this application. Claims 1–12, 15–28, 31, and 32 are allowed.

Claims 1, 4, 17, 20, 33, 35, and 36 are amended herein. These amendments are supported by the specification as filed. Applicants note that the amendments made to allowed claims 1, 4, 17, 20 only correct formal matters in the claims, and respectfully submit that these claims are still allowable as amended herein. Applicants respectfully request that the above amendments be entered and further request reconsideration in light of the amendments and remarks contained herein.

II. Allowable Subject Matter.

Applicants note with appreciation the Examiner's indication that claims 1–12, 15–28, 31, and 32 are allowed, and that Claims 35, 36 and 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants note that the amendments made to claims 35 and 36 only correct formal matters in the claims, and respectfully submit that these claims are still allowable as amended herein. Because Applicants have overcome the rejection of base claim 33 in this response, Applicants respectfully submit that claims 35, 36, and 45 are now in condition for allowance, and request the withdrawal of the objections thereto.

III. Remarks Regarding Rejections Under 35 U.S.C. § 102

A. Claims 33, 34, 38–41, 43, and 48 Are not Anticipated by *Sjostrom*

Claims 33, 34, 38–41, 43, and 48 stand rejected under 35 U.S.C. § 102(b) as anticipated by *Sjostrom et al.*, “Simple Gel Swelling Experiments distinguish between Associating and Nonassociating Polymer–Surfactant Pairs,” *Langmuir*, Volume 17, pages 3836–3843 (2001) (“*Sjostrom*”). With respect to these rejections, the Office Action states:

Sjostrom teaches a gel formed from hydrophobically modified hydroxyethyl cellulose, which contains a crosslinking agent, and a surfactant within the scope of the present invention (see Experimental section and Figures 9 and 7). Applicants intended use as a well treating fluid does not distinguish (In re Pearson 181 USPQ 641).

(Office Action at 2.) Applicants disagree with these rejections for the reasons stated below.

In order to establish a *prima facie* case of anticipation under 35 U.S.C. § 102, all the elements of the claimed invention must be found within a single prior art reference. *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 1101, 227 USPQ 337, 350 (Fed. Cir. 1985). Applicants respectfully submit that each and every element of Claims 33, 34, 38–41, 43, and 48 is not found within the *Sjostrom* reference.

Claim 33, as amended recites:

An aqueous treating fluid composition for treating a subterranean formation comprising:

- water;
- a water soluble hydrophobically modified gelling agent polymer produced by grafting a low concentration of hydrophobic monomers onto a gelling agent polymer;
- a crosslinking agent; and
- an ionic surfactant having a hydrophobic chain portion associated with said hydrophobic monomers grafted onto said gelling agent polymer resulting in gelling agent polymer molecules having increased radiuses of gyration; wherein:

- said ionic surfactant is present in said treating fluid composition in an amount in the range of from about 0.01% to about 0.025% by weight of said composition;

- said hydrophobically modified gelling agent polymer acts to viscosify said treating fluid composition;
- and

- said hydrophobic monomers grafted onto said hydrophobically modified gelling agent polymer comprise at least two different alkyl substituents.

Sjostrom fails to teach, suggest, or disclose the step wherein “said hydrophobically modified gelling agent polymer acts to viscosify said treating fluid composition.” Rather, *Sjostrom* discloses the immersion of polymer gel rods in an aqueous surfactant solution. (*Sjostrom* at 3838.) The polymer gel rods are further allowed to equilibrate with the surfactant solution over three days, at the end of which the change in the size of the

polymer gel rod is measured. (*Sjostrom* at 3838.) Thus, because the polymer gel of *Sjostrom* exists only within the defined volume of the gel rod (both before and after equilibration with the surfactant solution), the gel is distinct from the external solution. (*Sjostrom*, “Results and Discussion.”) Therefore, the polymer as disclosed in *Sjostrom* does not viscosify the treating fluid composition as required by amended claim 33.

For at least this reason, *Sjostrom* does not anticipate claim 33, as amended herein. Therefore, Applicants respectfully request that the rejection of claim 33 be withdrawn. Claims 34, 38–41, 43, and 48 depend from claim 33, and thus these dependent claims incorporate the limitations in claim 33 that *Sjostrom* does not disclose. Therefore, Applicants submit that claims 34, 38–41, 43, and 48 are allowable, for example, for reasons similar to that discussed above with respect to claims 33. As such, Applicants respectfully request that the rejection of claims 34, 38–41, 43, and 48 be withdrawn.

B. Claims 33, 34, 38–41, 43, and 48 Are not Anticipated by *Rosen*

Claims 33, 34, 38–41, 43, and 48 stand rejected under 35 U.S.C. § 102(b) as anticipated by *Rosen et al.*, “Responsive Polymer Gels Based on Hydrophobically Modified Cellulose Ethers and Their Interactions with Ionic Surfactants,” *Langmuir*, Volume 14, pages 5795–5801 (1998) (“*Rosen*”). With respect to these rejections, the Office Action states:

Rosen teaches a gel formed from hydrophobically modified hydroxyethyl cellulose, which contains a crosslinking agent, and a surfactant within the scope of the present invention (see Experimental section and Figure 4). Applicants intended use as a well treating fluid does not distinguish (In re Pearson 181 USPQ 641).

(Office Action at 2–3.) Applicants disagree with these rejections for the reasons stated below.

In order to establish a *prima facie* case of anticipation under 35 U.S.C. § 102, all the elements of the claimed invention must be found within a single prior art reference. *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 1101, 227 USPQ 337, 350 (Fed. Cir. 1985). Applicants respectfully submit that each and every element of Claims 33, 34, 38–41, 43, and 48 is not found within the *Rosen* reference.

Claim 33, as amended recites:

An aqueous treating fluid composition for treating a subterranean formation comprising:

water;
a water soluble hydrophobically modified gelling agent polymer produced by grafting a low concentration of hydrophobic monomers onto a gelling agent polymer;
a crosslinking agent; and
an ionic surfactant having a hydrophobic chain portion associated with said hydrophobic monomers grafted onto said gelling agent polymer resulting in gelling agent polymer molecules having increased radiuses of gyration; wherein:
said ionic surfactant is present in said treating fluid composition in an amount in the range of from about 0.01% to about 0.025% by weight of said composition;
said hydrophobically modified gelling agent polymer acts to viscosify said treating fluid composition; and
said hydrophobic monomers grafted onto said hydrophobically modified gelling agent polymer comprise at least two different alkyl substituents.

Rosen fails to teach, suggest, or disclose the step wherein “said hydrophobically modified gelling agent polymer acts to viscosify said treating fluid composition.” Similarly to *Sjostrom*, *Rosen* discloses the immersion of polymer gel rods in an aqueous surfactant solution. (*Rosen* at 5797.) The polymer gel rods are further allowed to equilibrate with the surfactant solution over three days, at the end of which the change in the size of the polymer gel rod is measured. (*Rosen* at 5797.) Thus, because the polymer gel of *Rosen* exists only within the defined volume of the gel rod (both before and after equilibration with the surfactant solution), the gel is distinct from the external solution. (*Rosen*, “Results and Discussion.”) Therefore, the polymer as disclosed in *Rosen* does not viscosify the treating fluid composition as required by amended claim 33.

For at least this reason, *Rosen* does not anticipate claim 33, as amended herein. Therefore, Applicants respectfully request that the rejection of claim 33 be withdrawn. Claims 34, 38–41, 43, and 48 depend from claim 33, and thus these dependent claims incorporate the limitations in claim 33 that *Rosen* does not disclose. Therefore, Applicants submit that claims 34, 38–41, 43, and 48 are allowable, for example, for reasons similar to that discussed above with respect to claims 33. As such, Applicants respectfully request that the rejection of claims 34, 38–41, 43, and 48 be withdrawn.

C. Claims 33, 34, and 37-43 Are not Anticipated by *Rohrbaugh*

Claims 33, 34, and 37-43 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Publication No. 2003/0180466 to Rohrbaugh et al. ("*Rohrbaugh*"). With respect to these rejections, the Office Action states:

Rohrbaugh teaches a composition which can comprise a hydrophobically modified polymer and surfactant within the scope of the present invention (see paragraphs 0124 ad 0169-0170). such may further comprise a crosslinking agent (see paragraph 0259). The polymer and surfactant would clearly associate as in the present invention. Applicant intended use as a well treating fluid does not distinguish (In re Pearson 181 USPQ 641).

(Office Action at 3.) Applicants disagree with these rejections for the reasons stated below.

In order to establish a *prima facie* case of anticipation under 35 U.S.C. § 102, all the elements of the claimed invention must be found within a single prior art reference. *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 1101, 227 USPQ 337, 350 (Fed. Cir. 1985). Applicants respectfully submit that each and every element of Claims 33, 34, and 37-43 is not found within the *Rohrbaugh* reference.

Claim 33, as amended recites:

An aqueous treating fluid composition for treating a subterranean formation comprising:

water;

a water soluble hydrophobically modified gelling agent polymer produced by grafting a low concentration of hydrophobic monomers onto a gelling agent polymer;

a crosslinking agent; and

an ionic surfactant having a hydrophobic chain portion associated with said hydrophobic monomers grafted onto said gelling agent polymer resulting in gelling agent polymer molecules having increased radiiuses of gyration; wherein:

said ionic surfactant is present in said treating fluid composition in an amount in the range of from about 0.01% to about 0.025% by weight of said composition;

said hydrophobically modified gelling agent polymer acts to viscosify said treating fluid composition; and

said hydrophobic monomers grafted onto said hydrophobically modified gelling agent polymer comprise at least two different alkyl substituents.

Rohrbaugh fails to teach, suggest, or disclose “hydrophobic monomers grafted onto said hydrophobically modified gelling agent polymer [that] comprise at least two different alkyl substituents.” Rather, *Rohrbaugh* merely discloses the use of “[p]olyhydroxyl material [that] include: methyl cellulose, hydroxyethyl cellulose, hydroxypropyl cellulose, carboxymethyl cellulose and hydrophobically modified analogs.” (*Rohrbaugh*, ¶ [0124].) *Rohrbaugh* contains no teaching, suggestion, or disclosure that at least two different alkyl substituents are used to form hydrophobically modified analogs of the listed polyhydroxyl cellulose materials.

For at least this reason, *Rohrbaugh* does not anticipate claim 33, as amended herein. Therefore, Applicants respectfully request that the rejection of claim 33 be withdrawn. Claims 34 and 37–43 depend from claim 33, and thus these dependent claims incorporate the limitations in claim 33 that *Rohrbaugh* does not disclose. Therefore, Applicants submit that claims 34 and 37–43 are allowable, for example, for reasons similar to that discussed above with respect to claims 33. As such, Applicants respectfully request that the rejection of claims 34 and 37–43 be withdrawn.

IV. Remarks Regarding Rejections Under 35 U.S.C. § 103(a)

Claims 33, 34, and 37–44 stand rejected under 35 U.S.C. § 103(a) as obvious over *Rohrbaugh*. With respect to these rejections, the Office Action states:

Rohrbaugh teaches a composition which can comprise a hydrophobically modified polymer and surfactant within the scope of the present invention (see paragraphs 0124 and 0171–173). Such may further comprise a crosslinking agent (see paragraph 0259). The polymer and surfactant would clearly associate as in the present invention. *Rohrbaugh* differs from the present invention in that the specific surfactants of claim 44 are not disclosed. However, the surfactant formula disclosed by *Rohrbaugh* in paragraph encompasses surfactants disclosed in claim 44. It would be obvious to utilize various surfactants encompassed by the formula of *Rohrbaugh*, including those of claim 44, as surfactants in the composition of *Rohrbaugh*, given the teaching of *Rohrbaugh* that such compounds within the scope of the formula are useful as surfactants therein. Applicants intended use as a well treating fluid does not distinguish (In re Pearson 181 USPQ 641).

(Office Action at 3–4.) Applicants disagree with these rejections for the reasons stated below.

In order for a reference or combination of references to form the basis for a rejection under § 103(a), the reference or combination of references must teach or suggest all of the elements of the claim. M.P.E.P. § 2143. As discussed in Section III.C above, *Rohrbaugh* does not teach, suggest, or disclose wherein “said hydrophobic monomers grafted onto said hydrophobically modified gelling agent polymer comprise at least two different alkyl substituents” as recited in claim 33. Claims 34 and 37–44 depend from claims 33, and thus these dependent claims incorporate the limitations in claim 33 that *Rohrbaugh* does not teach, suggest, or disclose. Therefore, Applicants submit that claims 34 and 37–44 are allowable, for example, for reasons similar to those discussed above with respect to claim 33.

V. No Waiver.

All of Applicants’ arguments and amendments are without prejudice or disclaimer. Additionally, Applicants have merely discussed example distinctions from the *Sjostrom*, *Rosen*, and *Rohrbaugh* references. Other distinctions may exist, and Applicants reserve the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner’s additional statements, such as, for example, any statements relating to what would be obvious to a person of ordinary skill in the art. The example distinctions discussed by Applicants are sufficient to overcome the rejections.

SUMMARY

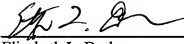
In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Because this response has been filed within two months of when the Final Office Action was issued, Applicants respectfully request that the Examiner issue an advisory action if the Examiner does not find the claims to be allowable in light of the amendments and remarks made herein. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants believe that there are no fees due in association with the filing of this Response. However, should the Commissioner deem that any fees are due, including any fees

for extensions of time, Applicants respectfully request that the Commissioner accept this as a Petition Therefor, and direct that any additional fees be charged to Baker Botts L.L.P. Deposit Account No. 02-0383, Order Number 063718.0936.

Respectfully submitted,

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